

#### ABSTRACT OF THE DISCLOSURE

5 A transmission component is incorporated into a transmission in which an input shaft, an output shaft, or a gear is rotatably supported by a rolling bearing. The component has a nitriding layer at a surface layer and an austenite grain with a grain size number falling within a range exceeding 10. This provides a transmission component having an increased anti-crack strength, enhanced dimensional stability, and a long fatigue life. A method of manufacturing such a transmission component and a tapered roller bearing are also provided.